

ABSTRACT OF THE DISCLOSURE

In one embodiment, an apparatus for processing sound includes a means (401) for analysing a sound signal into a number of frequency bands and a means (403) for applying variable gain to each frequency band independently. Gain is applied under control of a number of gain comparator means (409) each of which generates a number of statistical distribution estimates in respect of each signal and compares those estimates to predetermined hearing response parameters stored in memory (411). The numerous gain compensated frequency bands are then combined (415) in order to generate a single sound signal. The apparatus may be implemented in dedicated hardware embodiment or by software running on a microprocessor.